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# **SAC-4P-M12MS/ 1,5-PUR/M12FS**

Order No.: 1668373



http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=1668373

Sensor/Actuator cable, 4-position, PUR, halogen-free, Black-gray RAL 7021, Plug, straight M12, A-coded, on Socket, straight M12, A-coded, Cable length: 1.5 m

| Commercial data          |                   |
|--------------------------|-------------------|
| GTIN (EAN)               | 4 017918 136345   |
| sales group              | D111              |
| Pack                     | 1 pcs.            |
| Customs tariff           | 85444290          |
| Catalog page information | Page 82 (PC-2009) |

## Product notes

WEEE/RoHS-compliant since: 12/01/2005



## http://

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### **Technical data**

#### General data

| Rated current at 40°C | 4 A                      |
|-----------------------|--------------------------|
| Rated voltage         | 250 V                    |
| Number of positions   | 4                        |
| Volume resistance     | $\leq 5 \text{ m}\Omega$ |

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| Inculation registance              | > 10 MO                                          |
|------------------------------------|--------------------------------------------------|
| Insulation resistance              | ≥ 10 MΩ                                          |
| Length of cable                    | 1.5 m                                            |
| Ambient temperature (operation)    | -25 °C 90 °C (Male connector / female connector) |
| General characteristics            |                                                  |
| Standards/regulations              | M12 connector IEC 61076-2-101                    |
| Coding                             | A - standard                                     |
| Surge voltage category             | II                                               |
| Pollution degree                   | 3                                                |
| Degree of protection               | IP65/IP68/IP69K                                  |
| Insertion/withdrawal cycles        | ≥ 100                                            |
| Contact material                   | CuSn                                             |
| Contact surface material           | Ni/Au                                            |
| Contact carrier material           | TPU GF                                           |
| Material of grip body              | TPU, hardly inflammable, self-extinguishing      |
| Material, knurls                   | Zinc die-cast, (nickel-plated)                   |
| Sealing material                   | NBR                                              |
| Status display                     | No                                               |
| Conductor data                     |                                                  |
| Cable type                         | PUR halogen-free black                           |
| Cable type (abbreviation)          | PUR                                              |
| Cable abbreviation                 | Li9Y11Y-HF                                       |
| Conductor cross section            | 0.34 mm²                                         |
| AWG signal line                    | 22                                               |
| Conductor structure signal line    | 42x 0.10 mm                                      |
| Core diameter including insulation | 1.27 mm ±0.02 mm                                 |
| Thickness, insulation              | ≥ 0.21 mm (Core insulation)                      |
|                                    | ≥ 0.8 mm (Outer cable sheath)                    |
| External cable diameter            | 4.7 mm ±0.15 mm                                  |
| Wire colors                        | Black, brown, blue, white                        |
| External sheath, color             | Black-gray RAL 7021                              |
| Insulation resistance              | $\geq$ 100 M $\Omega$ *km                        |
| Conductor resistance               | $\leq$ 58 $\Omega$ /km (at 20°C)                 |
| Nominal voltage, conductor         | ≤ 300 V                                          |
|                                    |                                                  |

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| Overall twist                                 | 4 wires, twisted                                                    |
|-----------------------------------------------|---------------------------------------------------------------------|
| Length of twist, overall twist                | 49.5 mm                                                             |
| Outer sheath, material                        | PUR                                                                 |
| Material conductor insulation                 | PP                                                                  |
| Conductor material                            | Bare Cu litz wires                                                  |
| Cable weight                                  | 30 kg/km                                                            |
| Smallest bending radius, fixed installation   | 23.5 mm                                                             |
| Smallest bending radius, movable installation | 47 mm                                                               |
| Number of bending cycles                      | 4000000                                                             |
| Bending radius                                | 47 mm                                                               |
| Traversing path                               | 10 m                                                                |
| Traversing rate                               | 3 m/s                                                               |
| Acceleration                                  | 10 m/s <sup>2</sup>                                                 |
| Ambient temperature (operation)               | -40 °C 80 °C (cable, fixed installation)                            |
|                                               | -25 °C 80 °C (cable, flexible installation)                         |
| Special properties                            | Flexible cable conduit capable                                      |
|                                               | Silicone-free                                                       |
|                                               | Free of substances which would hinder coating with paint or varnish |
| Flame resistance                              | in accordance with DIN UL-Style 20549                               |
|                                               | in accordance with FT1 as per UL 758                                |
| Halogen-free                                  | in accordance with DIN VDE 0472 part 815                            |
|                                               | in accordance with DIN EN 50267-2-1                                 |
| Resistance to oil                             | in accordance with DIN EN 60811-2-1                                 |
| Other resistance                              | Highly resistant to acids, alkaline solutions and solvents          |
|                                               | hydrolysis and microbe resistant                                    |

## **Certificates / Approvals**





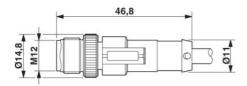


Certification

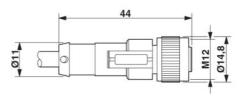
CUL Listed, GOST, UL Listed

## Diagrams/Drawings

### Dimensioned drawing

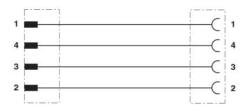


M12 x 1 male connector, straight



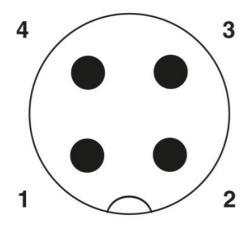
M12 x 1 female connector, straight

## Circuit diagram

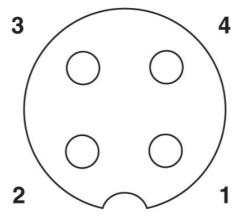


Contact assignment of the M12 plug and the M12 socket

## Schematic diagram



Pin assignment M12 plug, 4-pos., A-coded, view plug side



Pin assignment M12 socket, 4-pos., A-coded, view female side

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